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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/228, 872 01/11/99 BARRY

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LM31/0504

EXAMINER

GREGORY M HOWISON
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WALLERSON, M

ART UNIT

PAPER NUMBER

2722

DATE MAILED:

05/04/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No. 09/228,872	Applicant(s) Michael W. Barry et al
Examiner Mark Wallerson	Group Art Unit 2722

Responsive to communication(s) filed on _____

This action is **FINAL**.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

Claim(s) 5-27 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

Claim(s) _____ is/are allowed.

Claim(s) 5-13, 15-23, and 25-27 is/are rejected.

Claim(s) 14 and 24 is/are objected to.

Claims _____ are subject to restriction or election requirement.

Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The drawing(s) filed on _____ is/are objected to by the Examiner.

The proposed drawing correction, filed on _____ is approved disapproved.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All Some* None of the CERTIFIED copies of the priority documents have been

received.

received in Application No. (Series Code/Serial Number) _____.

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

Notice of References Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, Paper No(s). 7

Interview Summary, PTO-413

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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Part III DETAILED ACTION

Notice to Applicant(s)

1. This application has been examined. Claims 5-27 are pending.

Information Disclosure Statement

2. The U. S. references listed in the Information Disclosure Statement dated 5/24/99 have been considered by the Examiner and is attached to this Office Action. The Foreign Patents and "Other Documents" were not provided.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, 26, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barry et. al. (hereinafter referred to as Barry) (U. S. 5,596,416) in view of Matias (U. S. 5,528,374).

With respect to claims 5, 7, and 18, Barry discloses a multiple print engine (column 1, lines 56-57) for printing one or more copies (files) of a multiple page document (column 1, lines 57-63) input as a single print job (column 1, lines 63-65) comprising a plurality of physical print

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engines (10) each having an input for rasterized data, and an output bin (23) for receiving printed output pages; a job distributor (30) for receiving multiple page documents (column 3, lines 22-25) and providing the rasterized page data for parallel distribution to the inputs of the plural physical print engines (column 3, lines 35-55) according to print job parameters associated with the rasterized data (column 3, lines 39-42). Barry differs from claims 5, 7, and 18 in that he does not disclose that the job distributor has a single RIP engine (processor). Matias discloses a printing apparatus in which a single RIP (16) processes jobs for plural print engines (figure 3). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Barry wherein a single RIP would be used. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Barry by the teaching of Matias in order to simplify the printing process.

Further with respect to claim 18, Barry discloses an image task manager for retrieving the rasterized image for the print job and determining a print order for each page according to print job parameters (column 6, lines 50-59), and an engine manager (130) for selecting one of the print engines to print. each image (column 6, line 60 to column 7, line 3).

Further with respect to claim 7, Barry discloses a storage device for storing each rasterized image (149); an image task manager for retrieving the rasterized image for the print job and determining a print order for each page according to print job parameters (column 6, lines 50-59), and an engine manager (130) for selecting one of the print engines to print. each image (column 6, line 60 to column 7, line 3).

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With regard to claims 6 and 19, Barry discloses that the print engine comprises an electrophotographic print engine having an interface circuit coupled to the input (column 6, lines 12-15).

With respect to claim 8, Barry discloses the job parameters associated with the rasterized images comprises information encoded in the rasterized page data and information entered by the user (column 3, lines 17-25 and 36-39 and column 7, line 67 to column 8, line 14).

With regard to claim 9, Barry discloses the encoded information includes printing control information (column 9, lines 28-36).

With respect to claims 10 and 20, Barry differs from claim 10 in that he does not a RIP engine Matias discloses a decoder (42) for decoding input print strings; a rasterizer (46) for generating a rasterized image mapped to the input print data (column 4, lines 15-38), a formatter (46) for constituting each image as a page of data (column 4, lines 15-38), and a storage (149) for storing each rasterized image. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Barry by the teaching of Matias in order to improve the image processing.

With regard to claims 11 and 21, Barry discloses page buffers for storing rasterized page data (149, figure 5).

With respect to claims 12 and 22, Barry discloses a dissembler (120) for extracting print job parameters from the rasterized page data, and an arranger (126) for arranging the print order for each print job (column 6, line 60 to column 7, line 3).

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With respect to claims 13, 23, and 26, Barry discloses routing rasterized images directly to the print engine (column 7, lines 4-19).

With respect to claims 15 and 25, Barry discloses a selector (120) for associating one of the engines with each rasterized data (column 7, lines 4-19).

With regard to claim 16, Barry discloses that the rasterized images have associated print characteristics for the print job such that the manager is operable to control the selected print engine independent of information encoded in the images (column 7, lines 13-19 and column 9, lines 28-36).

With respect to claims 17 and 27, Barry discloses sending data to at least two print engines at the same time (column 10, lines 49-50).

Allowable Subject Matter

5. Claims 14 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Wallerson whose telephone number is (703) 305-8581.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-4700.

Any response to this action should be mailed to:

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Commissioner of Patents and Trademarks

Washington, DC 20231

or faxed to:

(703) 308-9051 (for formal communications intended for entry)

(703) 308-9589 (for informal or draft communications, such as proposed amendments to be discussed at an interview; please label such communications "PROPOSED" or "DRAFT")

or hand-carried to:

Crystal Park Two

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PATENT EXAMINER *MW*

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